

**GOVERNMENT OF INDIA
SPACE
LOK SABHA**

UNSTARRED QUESTION NO:4761
ANSWERED ON:18.04.2001
SATELLITES FOR FLIGHT OPERATIONS
CHANDRA NATH SINGH

Will the Minister of SPACE be pleased to state:

- (a) whether the Indian Space Research Organisation (ISRO) is seriously contemplating to make use of satellite for flight operations;
- (b) if so, the details thereof;
- (c) the details of benefits likely to be derived with the use of satellite; and
- (d) the steps being taken by the Government to strengthen the existing satellite based systems?

Answer

MINISTER OF STATE IN THE DEPARTMENT OF SPACE (SMT. VASUNDHARA RAJE):

(a)&(b) Yes, Sir. Indian Space Research Organisation (ISRO) and the Airports Authority of India (AAI) have jointly prepared a National Plan for Satellite based Navigation of civilian aircraft under the aegis of a National Steering Committee chaired by Secretary, Civil Aviation.

A Technology Demonstration System has been planned as a first step to demonstrate higher accuracies required for final approach and landing stages of an aircraft. This is in the final stages of government approval. On successful completion of the Technology Demonstration System, a full operational capability System would be implemented.

(c) When operationalised, this system will provide the necessary accuracies and reliability required for civilian aircraft navigation and the resultant operational benefits would be :

- (i) airspace capacity enhancement, i.e., larger number of aircraft could share the same airspace without causing congestion.
- (ii) saving in flying time and fuel because the aircraft would be able to take direct route between origin and destination.

(d) At present, the Global Positioning System (GPS) is used world-wide for en-route navigation of aircraft. The Technology Demonstration System is essentially a first step towards a full operational capability space-based augmentation system for augmentation of GPS signals. When operationalised, this will provide navigation to aircraft during final approach and landing.